

ABSTRACT

The present invention applies computer techniques to the power spectrum analysis of brain wave signals, wherein the power spectrum fluctuations of supra-slow wave is obtained by selecting the maximum value of the power amplitude within 0.5 and 50Hz and performing multiple analysis of the power spectrum and frequency spectrum, and a series of data and parameters are obtained to provide a basis for cerebral functions testing and disease diagnosis by analyzing the fluctuations. The analysis method comprises the analysis of the conventional power spectrum and may also comprises the analysis of the fluctuation signals of brain wave power, fluctuations of brain wave, S pedigree and further multi-item analyses. And the relevant apparatus implementing such method comprises electrodes, brain wave signal amplifier or a brain wave recording box, a Personal Computer, data processor and terminal processors.